

WHAT IS CLAIMED IS:

1 **1.** A method for compressing the representation of a
2 sequence of points in a space, the method comprising:
3 dividing a sequence of points into segments of successive
4 points;
5 compressing each of the segments irrespective of the
6 compression applied to the other segments.

1 **2.** The method of claim **1**, wherein the step of dividing
2 comprises
3 dividing a sequence of points into segments of S successive
4 points.

1 **3.** The method of claim **1**, wherein before the step of
2 dividing, the following step is performed:
3 determining the value of S.

1 **4.** The method of claim 3, wherein the step of determining
2 comprises
3 generating multiple compressions of the sequence, each of
4 the multiple compressions at a different value of S.

1 **5.** The method of claim 3, wherein the step of determining
2 comprises
3 generating a compression of the sequence for each value of S
4 from a minimum to a maximum.

1 **6.** The method of claim 3, wherein the step of determining
2 comprises

3 generating a compression of the sequence for each value of S
4 from a minimum of two (2) to a maximum equal to the number of
5 points in the sequence.

1 7. The method of claim 3, wherein the step of determining
2 comprises

3 generating multiple compressions of the sequence, each of
4 the multiple compressions at a different value of S; and
5 determining the value of S to be the value of S generating the
6 smallest of the multiple compressions.

1 8. The method of claim 1, wherein the step of compressing
2 comprises

3 compressing each of the segments of S successive, i-bit points
4 into segments of j-bit points, where $j \leq i$.

1 9. The method of claim 8, wherein the value of j may vary
2 from segment to segment.

1 10. The method of claim 8, wherein, for any given segment, j
2 is the minimum number of bits necessary to represent the data in that given
3 segment.

1 11. The method of claim 1, wherein the step of compressing
2 comprises

3 determining the largest coordinate in any dimension of any
4 point in a segment;

5 setting j for the segment to the ceiling of the base-2 log of that
6 largest coordinate; and

7 truncating from points of the segment most significant bits

8 exceeding j bits.

1 **12.** The method of claim **1**, wherein the sequence of points
2 is an electronic signature.

1 **13.** The method of claim **1**, wherein the step of compressing
2 comprises
3 compressing each of the segments without losing any of the
4 data in any of the segments.

1 **14.** The method of claim **1**, wherein the step of compressing
2 comprises
3 compressing each of the segments, losing data as directed by
4 an invoking user.

1 **15.** The method of claim **1**, wherein before the step of
2 dividing the following step is performed:
3 converting DrawTo data to relative-movement data.

1 **16.** A method for compressing an electronic signature, the
2 method comprising:
3 dividing an electronic signature comprising a sequence of i-bit
4 points into segments of successive points numbering S;
5 compressing each of the segments into segments of j-bit points
6 without losing any of the data in the signature by
7 determining the largest coordinate in any
8 dimension of any point in a segment;
9 setting j for the segment to the ceiling of the base-
10 2 log of that largest coordinate; and
11 truncating from points of the segment most

12 significant bits exceeding j bits.

1 **17.** The method of claim **16**, wherein before the step of
2 dividing, the following steps are performed:
3 converting DrawTo data to relative-movement data;
4 generating multiple compressions of the sequence, each of
5 the multiple compressions at a different value of S; and
6 determining the value of S to be the value of S generating the
7 smallest of the multiple compressions.

1 **18.** A data store wherein is located a computer program for
2 compressing the representation of a sequence of points in a space by:
3 dividing a sequence of points into segments of successive
4 points;
5 compressing each of the segments irrespective of the
6 compression applied to the other segments.

1 **19.** A data store wherein is located a computer program for
2 compressing an electronic signature by:
3 dividing an electronic signature comprising a sequence of i-bit
4 points into segments of successive points numbering S;
5 compressing each of the segments into segments of j-bit points
6 without losing any of the data in the signature by
7 determining the largest coordinate in any
8 dimension of any point in a segment;
9 setting j for the segment to the ceiling of the base-
10 $2 \log$ of that largest coordinate; and
11 truncating from points of the segment most
12 significant bits exceeding j bits.

1 20. The data store of claim **19**, wherein the computer
2 program compresses an electronic signature by, before the step of
3 dividing:
4 converting DrawTo data to relative-movement data;
5 generating multiple compressions of the sequence, each of
6 the multiple compressions at a different value of S; and
7 determining the value of S to be the value of S generating the
8 smallest of the multiple compressions.

1 **21.** A compressor for compressing the representation of a
2 sequence of points in a space, comprising:
3 the data store of claim **18**;
4 a CPU for executing the computer program in the data store;
5 and
6 a link, communicatively coupling the data store and the CPU.

1 **22.** A compressor for compressing an electronic signature,
2 comprising:
3 the data store of claim **19**;
4 a CPU for executing the computer program in the data store;
5 and
6 a link, communicatively coupling the data store and the CPU.

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